CLAIMS:

We claim:

1. A peritoneal dialysis solution comprising as osmotic agents approximately 0.25 to about 4.0% by weight of synthetic polypeptides wherein the synthetic peptides are approximately 2 to about 15 amino acids long.

2. A two part peritoneal dialysis solution designed to be mixed prior to infusion into a patient comprising:

a first part housed in a first structure including approximately 1.0 to about 8% (w/v) dextrose and a pH of approximately 4.0 to about 5.5;

a second part housed in a second structure including approximately 0.5 to about 8.0% (w/v) polypeptides and a pH of approximately 6.0 to about 7.5; and

including in either the first or the second structure a sufficient amount of the following ingredients so when the first part and second part are mixed, the following is provided: 120 to about 150 (mEq/L) sodium; 80.0 to about 110.0 (mEq/L) chloride; 0.0 to about 5.0 (mEq/L) lactate; 0.0 to about45.0 (mEq/L) bicarbonate; 0.0 to about 4.0 (mEq/L) calcium; and 0.0 to about 4.0 (mEq/L) magnesium.

3. The two part peritoneal dialysis solution of Claim 2 wherein the first and second structures are two separate chambers of a single container.

4. The two part peritoneal dialysis solution of Claim 2 wherein the pH of a resultant solution, comprising a mixture of the first part and the second part, is approximately 6.0 to about 7.4.

5. The two part peritoneal dialysis solution of Claim 2 wherein the molecular weight average of the polypeptides is approximately 400 to about 900 daltons.

6. The two part peritoneal dialysis solution of Claim 2 wherein the polypeptides comprise:

not more than approximately 0.10% of the polypeptides having a molecular weight of greater than 1200;

not more than approximately 25% of the polypeptides having a molecular weight of less than 400; and

the weight average of polypeptides being within the range of approximately 400 to about 900 daltons.

7. The two part peritoneal dialysis solution of Claim 2 wherein the polypeptides include synthetic polypeptides.

8. The two part peritoneal dialysis solution of Claim 2 wherein the synthetic polypeptides are approximately 2 to about 15 amino acids long.

9. An intraperitoneal drug delivery solution comprising approximately 0.25 to about 4.0% (w/v) polypeptides.

10. The intraperitoneal drug delivery solution of Claim 9 wherein the molecular weight average of the polypeptides is approximately 400 to about 900 daltons.

11. The intraperitoneal drug delivery solution of Claim 9 wherein the polypeptides comprise:

not more than approximately 0.10% of the polypeptides having a molecular weight of greater than 1200;

not more than approximately 25% of the polypeptides having a molecular weight of less than 400; and

the weight average of polypeptides being within the range of approximately 400 to about 900 daltons.

12. A peritoneal dialysis solution comprising as osmotic agent:

a synthetic polypeptide mixture having an average molecular weight of approximately 400 to about 900 daltons.

13. The peritoneal dialysis solution of Claim 12 wherein the osmotic agent includes dextrose.

14. The peritoneal dialysis solution of Claim 12 wherein the solution includes:

approximately 120.00 to about 150.00 (mEq/L) of sodium; and

approximately 80.0 to about 110.0 (mEq/L) of chloride.

15. The peritoneal dialysis solution of Claim 12 wherein the solution includes each of sodium, chloride, lactate, bicarbonate, calcium, and magnesium.

16. The peritoneal dialysis solution of Claim 12 wherein the solution includes:

0 to about 45.00 (mEq/L) of lactate;

0 to about 45.00 (mEq/L) of bicarbonate;

0 to about 45.00 (mEq/L) of calcium; and

0 to about 45.00 (mEq/L) of magnesium.

17. The peritoneal dialysis solution of Claim 12 wherein the pH of the solution is approximately 6.0 to about 7.4.

18. The peritoneal dialysis solution of Claim 12 wherein the synthetic peptides are approximately 2 to about 15 amino acids long.

ADD A1